



*Let the mind manage the body
Que l'esprit gère le corps*

SCIENCE

(Subject code No. P141/3)

MAURITIUS EXAMINATIONS SYNDICATE

Primary School Achievement Certificate Assessment

2021-2022

Time: 1 hour 45 Minutes

Total Marks: 100

INSTRUCTIONS TO CANDIDATES

- Check that this assessment booklet contains **7** questions printed on **19** pages numbered 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20.
- Write your Index Number on the assessment booklet in the space provided above.
- You should not use red, green or black ink in answering questions.
- Write all your answers clearly in the assessment booklet.
- Attempt all questions.

Question	Marking		Revision		Control	
	Marks	Sig	Marks	Sig	Marks	Sig
1						
2						
3						
4						
5						
6						
7						
Total						
Sig (HoG)						

Question 1 (10 marks)

Circle the correct answer. Each item carries one mark.

(a) How many teeth are there in a set of permanent teeth?

- A** 10
- B** 16
- C** 20
- D** 32

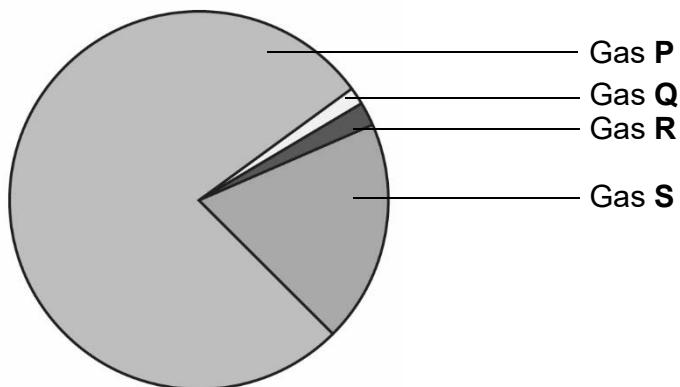
(b) Which one of the following materials is impermeable?

- A** Cotton
- B** Nylon
- C** Silk
- D** Wool

(c) Which one of the following is an aquatic plant?

- A** Fern
- B** Lotus
- C** Moss
- D** Mugut

- (d) The pie chart below represents the proportion of different gases in air.



Which part of the pie chart represents oxygen gas?

- A Gas P
- B Gas Q
- C Gas R
- D Gas S

- (e) **Diagram 1** shows a hibiscus.

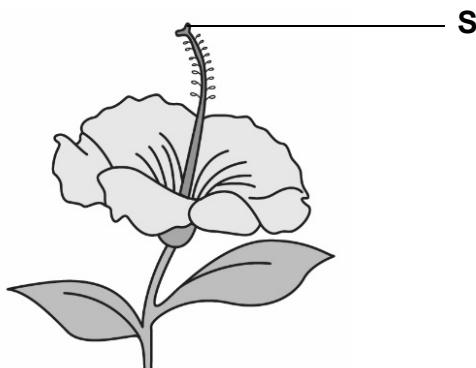


Diagram 1: A hibiscus

What is the function of Part S?

- A It produces pollen.
- B It manufactures food.
- C It attracts insects.
- D It receives pollen.

(f) Diagram 2 shows the water cycle.

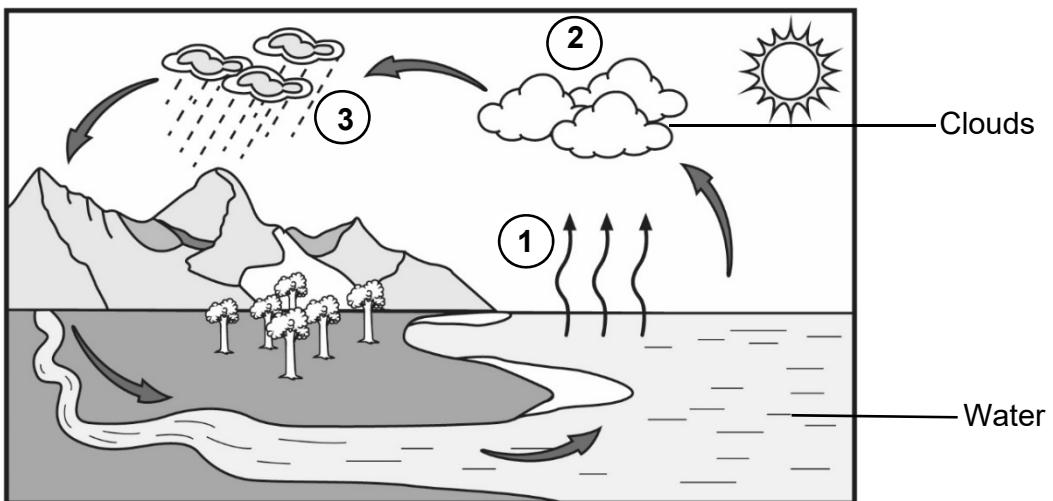


Diagram 2: The water cycle

What is the natural process occurring at ③?

- A Condensation
- B Evaporation
- C Melting
- D Precipitation

(g) Which one of the following movements is completed in a year?

- A One complete rotation of the Moon around the Earth
- B One complete rotation of the Earth on its axis
- C One complete rotation of the Earth around the Sun
- D One complete rotation of the Moon on its axis

- (h) **Diagram 3** shows solar panels on a house.

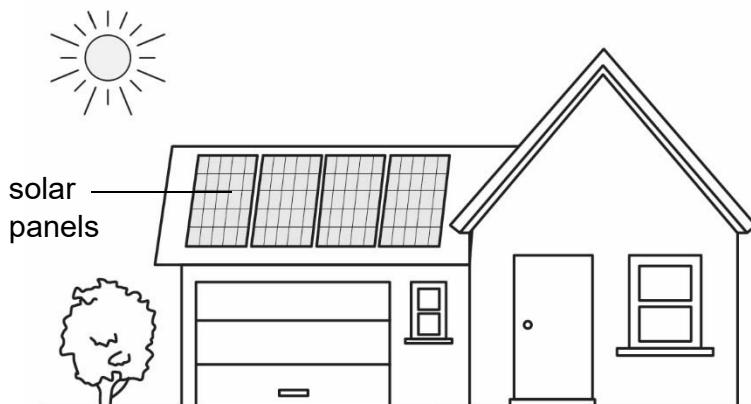


Diagram 3: Solar panels

Which **form** of energy is used by solar panels?

- A Chemical energy
- B Heat energy
- C Light energy
- D Movement energy

- (i) Which one of the following birds found in Mauritius is an **exotic** bird?

- A Echo Parakeet
- B Pink Pigeon
- C Solitaire
- D Sparrow

- (j) Ahmad places a cockroach in a closed jar.

What will happen to the amount of oxygen and carbon dioxide in the jar after some time?

	Amount of oxygen	Amount of carbon dioxide
A	decrease	decrease
B	increase	increase
C	increase	decrease
D	decrease	increase

M
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CE

QUESTION 2 (11 marks)

- (a) Diagram 4 shows a tomato plant.

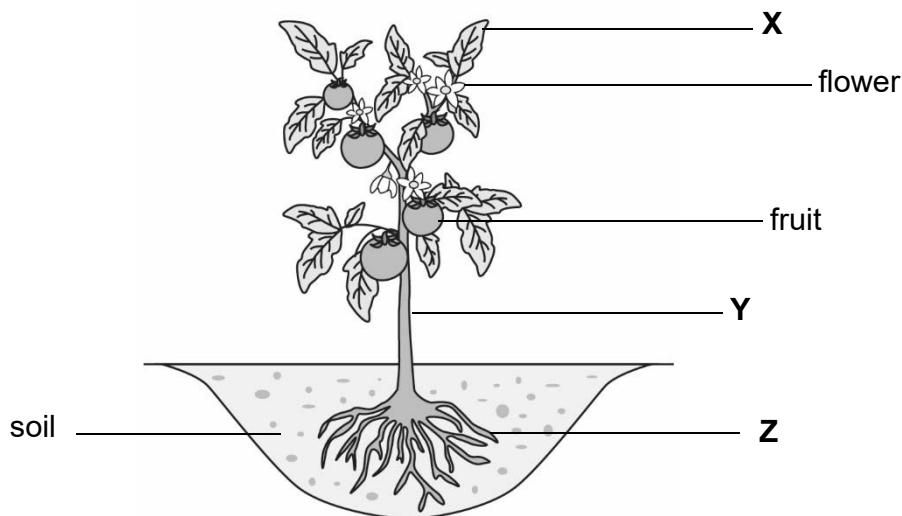


Diagram 4: A tomato plant

- (i) Name parts **X** and **Y** of the plant.

X:

Y: [2]

- (ii) Which part of the tomato plant holds the branches?

..... [1]

- (iii) Give one function of Part **Z**.

..... [1]

- (b) (i) What is pollination?

..... [1]

- (ii) Name an insect which is responsible for pollination.

..... [1]

Marks

(iii) Give two functions of the fruit.

1.

2. [2]

(c) (i) When a seed germinates, which part of the seedling grows first?

..... [1]

(ii) Give two conditions necessary for seeds to germinate.

1.

2. [2]

M
HG
QC
CE

QUESTION 3 (19 marks)

(a) Match each source of energy to the corresponding main form of energy it produces.

Source of energy

Form of energy produced

- Movement

Cooking gas ●

- Sound

Wind ●

- Chemical

Doorbell ●

- Heat

[3]

- (b) Rajen sets up an open circuit as shown in **Diagram 5**.

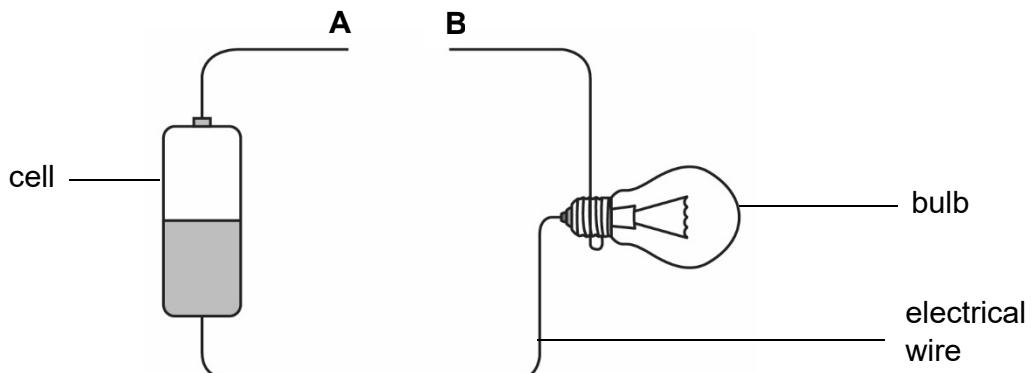


Diagram 5: An open circuit

- (i) What is an open circuit?

[1]

- (ii) On **Diagram 5**, write plus (+) and minus (-) on the cell.

[1]

- (c) Rajen places different objects, one at a time, between points **A** and **B**. He records his observations in **Table 1**.

- (i) Put a tick (✓) in the appropriate column in **Table 1** to indicate which object would cause the bulb to light up or not. An example is given.

Table 1

Name of object	Bulb lights up	Bulb does not light up
Plastic spoon		✓
Iron wire		
Dry piece of wood		
Aluminium coin		
Metal nail		

[4]

- (ii) Why do some of the objects in **Table 1** cause the bulb to light up?

[1]

(iii) What is the function of the electrical wire in the circuit?

..... [1]

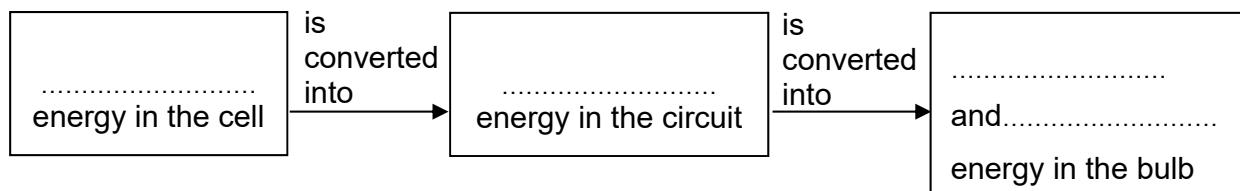
(iv) Why are electrical wires usually covered with rubber?

..... [1]

(v) State one precaution that should be taken when using electrical appliances.

..... [1]

(d) Fill in the boxes below to show the energy transformation that takes place when the bulb in the circuit lights up.



[4]

(e) Give two ways of saving energy.

1.

2.

[2]

M
HG
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QUESTION 4 (14 marks)

- (a) (i) Give one importance of a habitat to an animal.

..... [1]

- (ii) Complete **Table 2** by naming an animal which lives in the given habitat.

Table 2

Habitat	Animal
In the forest	
In the soil	

[2]

- (iii) Name one animal which lives both in water and on land.

..... [1]

- (iv) Fish live in water.

Name one part of the body of a fish that helps it to move about in water.

..... [1]

- (v) A hot desert is a habitat where very little rain falls.

Name a plant that grows well in hot deserts.

..... [1]

- (vi) Give two ways in which the plant you mentioned in part (a)(v) is adapted to live in its habitat.

1.

2. [2]

- (b) **Diagram 6** shows an ecosystem.

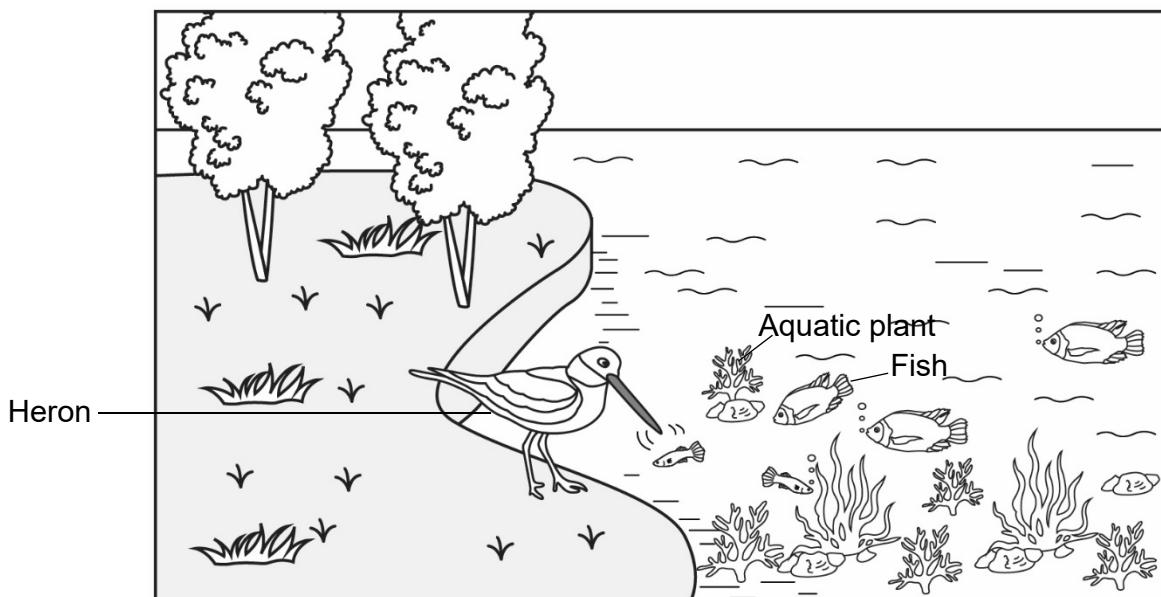
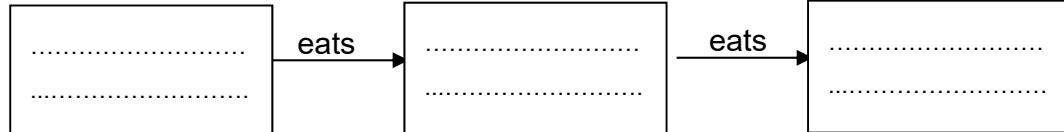


Diagram 6: An ecosystem

- (i) Fill in the boxes below to show how the living things in the ecosystem depend on each other.



[3]

- (ii) Name the process by which aquatic plants make their food.

.....

[1]

- (iii) Give two conditions necessary for the process you mentioned in part (b)(ii) to take place.

1.

2. [2]

M
HG
QC
CE

QUESTION 5 (15 marks)

- (a) (i) One characteristic of living things is that they feed themselves.
Give another characteristic of living things.

..... [1]

- (ii) **Diagram 7** shows a tiger and a goat.

Choose the correct word from the list below and write down the food eaten by each animal in the spaces provided.

grains flesh grass

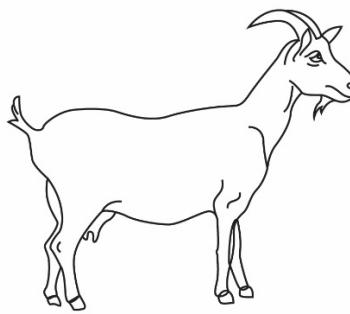
A tiger	A goat
 Pointy teeth	
Food it eats:	Food it eats:

Diagram 7: A tiger and a goat

[2]

- (iii) Observe the tiger.

1. What is the name given to its long pointy teeth?

..... [1]

2. State the function of these teeth.

..... [1]

- (iv) The monkey is an omnivorous animal.
What is an omnivorous animal?

..... [1]

(b) (i) What form of energy is stored in food?

.....

[1]

(ii) What do animals use energy for?

.....

[1]

(c) To stay in good health, we need to eat balanced meals.

(i) Name the three food groups that form a balanced meal.

1.

2.

3.

[3]

(ii) **Diagram 8** shows an incomplete meal for a **vegetarian**.

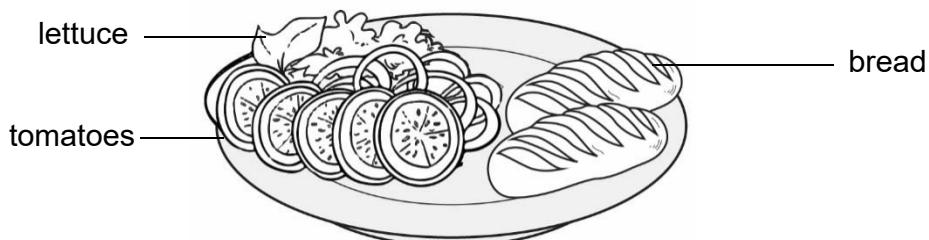


Diagram 8: Incomplete vegetarian meal

Which food group is missing from the meal?

.....

[1]

(iii) Which food item could be added to the meal in **Diagram 8** to make it a balanced vegetarian meal? Tick (✓) the correct box.

fish

carrots

lentils

[1]

(iv) Apart from eating balanced meals, give two other ways of staying in good health.

1.

2.

M
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QC
CE

QUESTION 6 (19 marks)

(a) Materials can be classified as natural or man-made.
They may be obtained from different sources.

- (i) Cotton is obtained from a plant.
Give another example of a material that is obtained from a plant.

.....

[1]

- (ii) Give two examples of materials obtained from animals.

1.

2.

[2]

- (iii) Name a material that rusts very easily.

.....

[1]

- (iv) State two conditions necessary for rusting to occur.

1.

2.

[2]

(b) Glass is used to make window panes.

- (i) Name the raw material used to make glass.

.....

[1]

- (ii) Give one property of glass which makes it suitable to make window panes.

.....

[1]

- (iii) Glass is a man-made material.
Give two other examples of man-made materials.

1.

2.

[2]

- (c) **Diagram 9** shows Ah Fat's guitar.

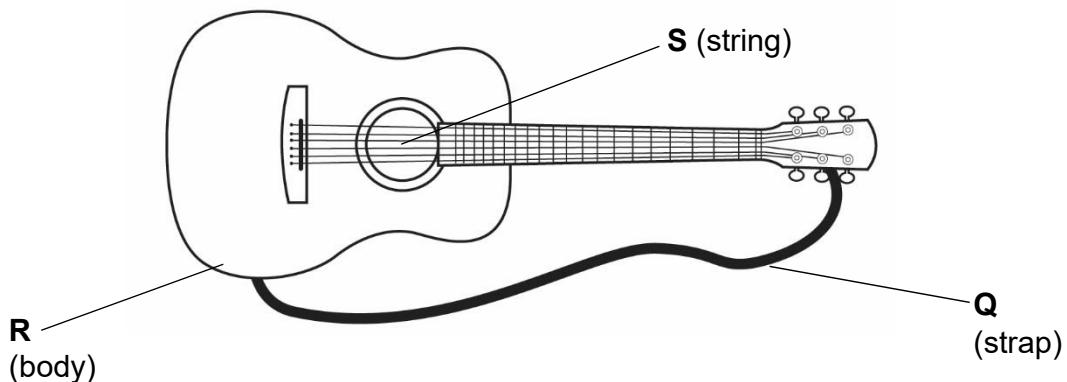


Diagram 9: Ah Fat's guitar

Suggest suitable materials that are commonly used to make parts **Q**, **R** and **S** of a guitar.

Q:

R:

S:

[3]

M
HG
QC
CE

- (d) (i) Name a gas needed for burning to take place.

.....

[1]

- (ii) An experiment to investigate the burning of candles is carried out. Three similar candles are lighted and covered using glass jars of different heights as shown in **Diagram 10**.

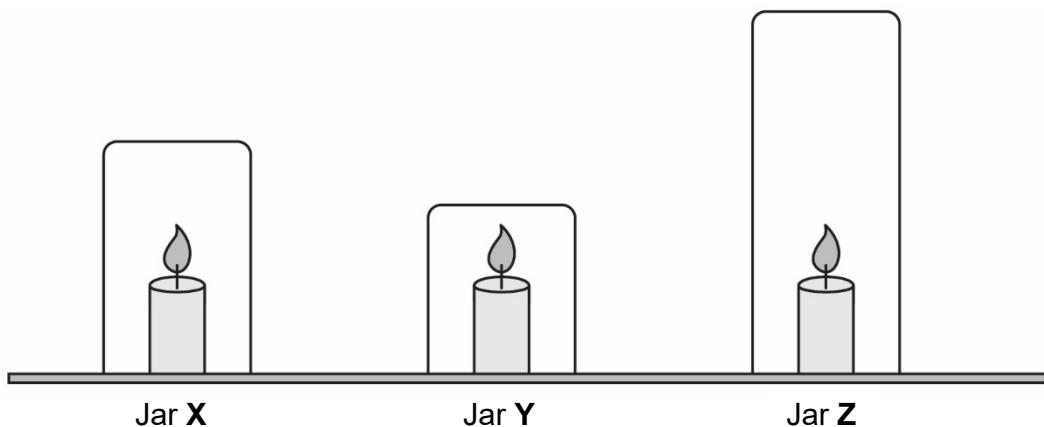


Diagram 10: Experiment to investigate the burning of candles

The time taken for the candles to extinguish is recorded in **Table 4**.

Table 4

Jar	Time
Y	3 seconds
Z	6 seconds

Suggest the time taken by the candle in Jar X to extinguish.

Tick (✓) the correct box.

2 seconds

5 seconds

8 seconds

[1]

- (iii) Give a reason for your answer to part (d)(ii).

.....

[1]

- (e) Diagram 11 shows the oxygen-carbon dioxide cycle.

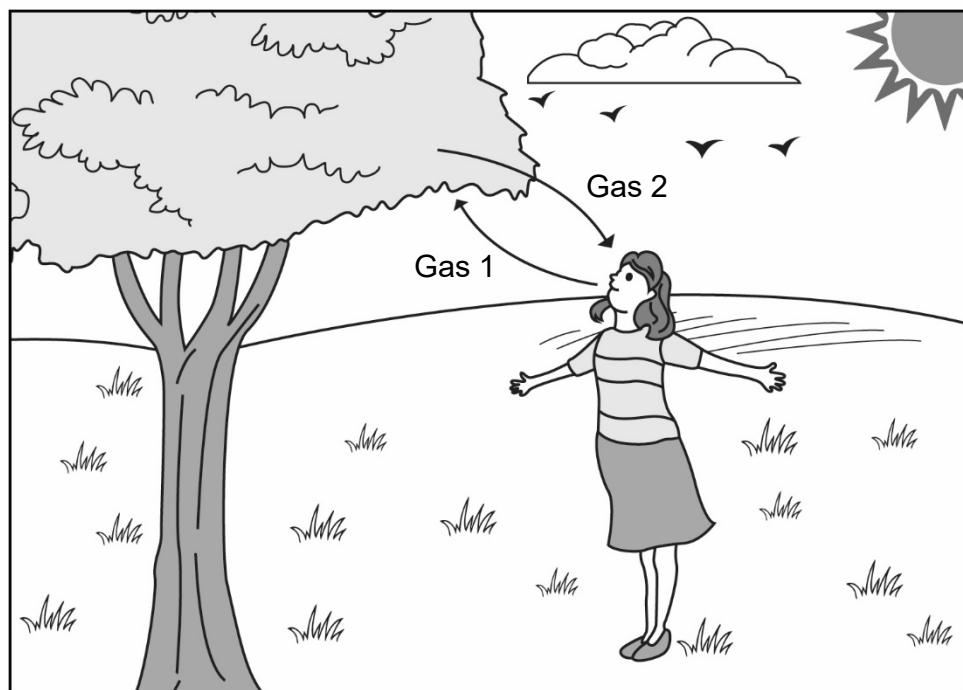


Diagram 11: oxygen-carbon dioxide cycle

- (i) Identify Gas 1 and Gas 2.

Gas 1: Gas 2: [1]

- (ii) Give two ways how the oxygen-carbon dioxide cycle is important.

1.

.....

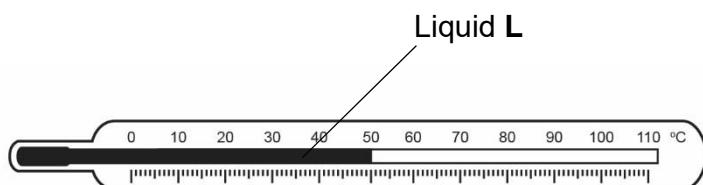
2.

[2]

M
HG
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CE

QUESTION 7 (12 marks)

- (a) Diagram 12 shows a thermometer.

**Diagram 12:** A thermometer

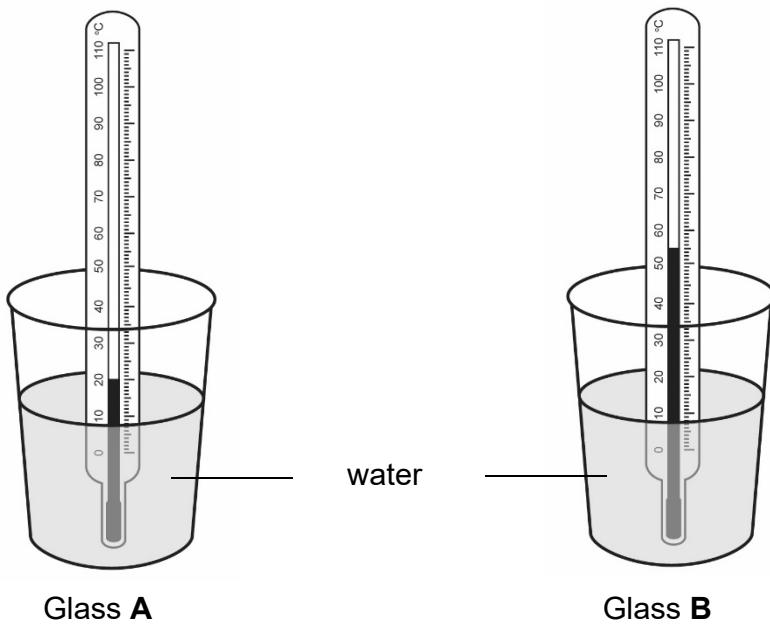
Name Liquid L.

.....

[1]

- (b) Diagram 13 shows two glasses of water, Glass A and Glass B.

The temperature of the water in each glass is measured using the thermometer in turn.

**Diagram 13:** Glass A and Glass B

- (i) In the table below, write down the temperatures shown in Diagram 13.

Glass	Temperature
A °C
B °C

[2]

- (ii) In which glass is the water warmer?

.....

[1]

- (iii) Some ice cubes are placed in Glass **B**.
What will happen to Liquid **L** in the thermometer?

.....

[1]

- (c) A bottle of cold drink is taken from the refrigerator.

After a few minutes, small droplets of water are seen on the outer surface of the bottle as shown in **Diagram 14**.

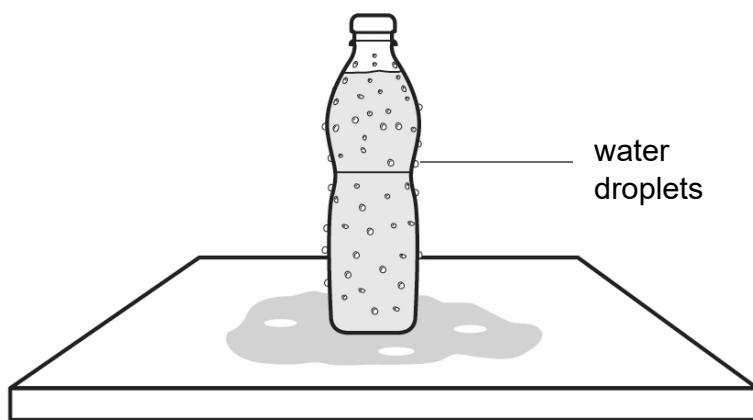


Diagram 14: Droplets of water on a bottle

- (i) Name the process by which these water droplets are formed.

.....

[1]

- (ii) Explain how the process mentioned in (c)(i) occurs.

.....

[1]

- (d) To protect the environment, it is important to dispose of waste in appropriate ways.

- (i) Give one example of a waste from plants.

.....

[1]

- (ii) When waste from plants is left for some time, it becomes compost.
Give one use of compost.

..... [1]

- (iii) What type of pollution is caused by the burning of waste?

..... [1]

- (iv) Give one way how the dumping of plastic waste in rivers can be harmful.

..... [1]

- (v) Give one way of disposing plastic waste that is safe for the environment.

..... [1]

M
HG
QC
CE

END OF PAPER